



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/782,503	02/13/2001	Robert T. Stone	33882/US/2 PSI0017/US	9929
33072	7590	11/27/2007		
KAGAN BINDER, PLLC SUITE 200, MAPLE ISLAND BUILDING 221 MAIN STREET NORTH STILLWATER, MN 55082			EXAMINER MEI, XU	
			ART UNIT 2615	PAPER NUMBER
			MAIL DATE 11/27/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/782,503

Applicant(s)

STONE ET AL.

Examiner

Xu Mei

Art Unit

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3-9, 12-14 and 22 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 10, 11 and 15-20 is/are rejected.
- 7) ☒ Claim(s) 21, 23 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 12/11/2006.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

1. The previous non-final rejection dated 10/04/2007 is vacated in view of an office action hereinafter.
2. This communication is responsive to the applicant's amendment dated 12/11/2006.
3. The indicated allowability of claims 1-2 is withdrawn in view of the newly discovered reference(s) to Kuo (US-6,097,823). Rejections based on the references of Kuo and Zoth (US-6,110,126) follow.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 15-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Zoth et al (US-6,110,126, hereafter, Zoth).

Regarding **claims 15-16**, Zoth discloses an audiometric apparatus for testing hearing (see Fig. 4), comprising stimulus generating means (stimulus generator 19) for transmitting at least one stimulus sequence or digital pulse coupled with a transducer (speaker 20), the transducer disposed on or within an earpiece (probe 27) and generating a first sound wave into an ear canal of a subject's inner ear; a detector including a microphone (microphone 21) disposed on or within the earpiece (probe 27) for detecting or receiving a second sound wave or response signal reflected from the subject's inner ear in response to the first sound wave or stimulus and generating a response electrical signal (signal outputted by microphone 20) from the reflected second sound wave; at least one signal conditioning circuit, including at least one signal conditioning filter and amplifier (23, 22 of Fig. 4) that received the electrical response signal and generating a conditioned output signal (signals outputted from 23); a computer (signal processing means that including memories 24 and vector analyzer 25) receiving the conditioned output signal and operative to analyze the conditioned output signal including generating at least one response signal waveform (signal outputted from 25), wherein the at least one stimulus sequence comprises at least one signal devoid of a definite relationship with time (the at least one stimulus sequence that generated by stimulus generator 9 is signal in frequency domain that lack or devoid of a definite relationship with time). The signal processing means or computer as shown by Zoth is also connected to the stimulus generator 19 as shown in Fig. 4 and would have provide operational control function to control the stimulus generator.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. **Claims 1-2, 10-11, and 17-20** are rejected under 35 U.S.C. 103(a) as being unpatentable over Zoth in view of Kuo.

Regarding **claims 1, 10 and 17**, Zoth discloses an audiometric apparatus for testing hearing (see Figs. 3-4), and as discussed in claim 15 above, comprising stimulus generating means (stimulus generator 11 or 19) for transmitting at least one stimulus sequence or digital pulse to a subject's inner ear; and detection means (microphone 13) for detecting a response signal returned from the subject's inner ear to the stimulus, wherein the at least one stimulus sequence comprises at least one signal devoid of a definite relationship with time (the at least one stimulus sequence that generated by stimulus generator 11 or 19 is/are signal(s) in frequency domain that lack or devoid of a definite relationship with time). What does Zoth not show is the stimulus sequence is one true random stimulus sequence. Kuo discloses a hearing aid feedback path modeling apparatus including a modeling signal generator (Fig. 2, element 64, col. 6, lines 48-60) that is capable of generating different type of modeling signals such as random signal, i.e. true random stimulus sequence as

Art Unit: 2615

claimed, for accurately modeling hearing aid feedback path in order to improve overall performance (col. 2, lines 30-67). It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the audiometric apparatus of Zoth by implementing random signal or true random stimulus sequence generating, as taught by Kuo, in order to accurately modeling the audiometric testing thus to improve the overall performance of the audiometric apparatus.

Regarding **claim 2**, see analyzers 15-16 in Fig. 3 of Zoth.

Regarding **claim 11**, see probe 27 and col. 9, lines 41-47.

Regarding **claims 18-20**, the modeling signal generator as taught by Kuo for random signal generating would have including random amplitude and frequency and rate control for the electrical stimulus as claimed.

Allowable Subject Matter

8. Claims 21 and 23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. Claims 3-9, 12-14 and 22 are allowed over prior art of record.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Xu Mei whose telephone number is 571-272-7523. The examiner can normally be reached on maxi flex.

Art Unit: 2615

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Xu Mei/
Xu Mei
Primary Examiner
Art Unit 2615
11/24/2007